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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,406	09/11/2003	Chin-Chin Chang	midway.606	5849

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EXAMINER

ASHLEY, BOYER DOLINGER

ART UNIT PAPER NUMBER

3724

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/660,406	CHANG, CHIN-CHIN	
	Examiner	Art Unit	
	Boyer D. Ashley	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3724

DETAILED ACTION

1. This office action is in response to applicant's amendment filed 6/6/05, wherein claims 1 and 4 were amended; and claims 2-3 were canceled. The allowability indicated in the previous office action is henceforth withdrawn in light of the newly discovered references. Any inconvenience is regretted.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 4-6 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 8, the phrase "... linkage set respectively pivotally connected to a ..." is awkwardly worded. Better language would be "... linkage set respectively, which are pivotally connected to a ...".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen, U.S. Patent 1,765,733, in view of Meredith et al., U.S. Patent Application

Art Unit: 3724

2002/0152867, Ushiwata et al., U.S. Patent 5,424,294, Ito et al. U.S. Patent 5,357,834, and Peterson, U.S. Patent 2,317,553.

Olsen discloses the invention substantially as claimed including, e.g., a base member (5) with a supporting seat (6/7); a universal arm (10) pivotally mounted (5 as shown in Figures 1-3) to a rear end of the base member; a housing (8) with a saw blade (9) pivotally connected (see Figure 1) to the universal arm, the saw blade position laterally and rotatably to the housing. A longitudinally (relative to the housing) mounted drive device (8), the drive device including: a casing (cover of 27) securely connected to the housing; a motor (see column 2, lines 1-10) mounted within the casing. Olsen further discloses two connecting rods (the first two on the far left as shown in Figure 1) upwardly (no orientation defined in the claims) form the support seat forming a V-shape (reverse). The universal arm includes two sets of linkages as shown in Figure 2, wherein one end is pivotally connected to the connecting rods and another end connected to a second linkage as shown. The universal arm further includes a connector pivotally connected to the second end of the linkages as shown in Figure 1. The housing includes a handle as shown in Figure 1.

Olsen lacks the saw blade having a first belt wheel, a first worm screw shaft secured to the free end of the motor shaft, a worm gear laterally placed from the worm screw shaft and having a belt wheel, and an endless belt mounted between the two belt wheels. Olsen further lacks the specific radial orientation of the motor.

Meredith et al. discloses that it is old and well known in the art to use motors that are oriented longitudinally relative to the saw blade movement direction for the purpose of allowing for miter saw cuts without the motor interfering with the workpiece or fence.

Ito et al. discloses that it is old and well known in the art to use motors oriented at an angle relative to the blade with worm shafts and gears such that the motor does not interfere with miter cuts of the workpiece.

Ushiwata et al. discloses that it is old and well known in the art to use motor offset from the rotational axis of the saw blade by use of a transmission belt and gear pulley for the purpose of allowing for miter saw cuts without the motor interfering with the workpiece while also providing for a speed reduction.

Moreover, Peterson discloses that it is old and well known in the art to use gear and belt transmissions as shown in Figure 4 (motor 49, motor shaft 53, gear 52, belt 59, pulley 57, and second pulley 33) for rotating a blade with speed reduction.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use a motor oriented radially relative the saw blade along a moving direction of the saw blade, wherein the transmission includes a first belt wheel (pulley), a first worm screw shaft secured to the free end of the motor shaft, a worm gear laterally placed from the worm screw shaft and having a belt wheel (pulley), and an endless belt mounted between the two belt wheels with the saw of Olsen in order to relocate the motor such that the motor did not interfere with miter cuts as also to allow for speed reduction between the motor and the blade.

Art Unit: 3724

Response to Arguments

6. Applicant's arguments with respect to claims 1 and 4-6 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

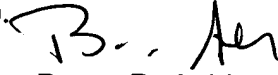
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. The prior art references cited but not relied upon were cited to shown similar devices in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boyer D. Ashley whose telephone number is 571-272-4502. The examiner can normally be reached on Monday-Thursday 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Boyer D. Ashley
Primary Examiner
Art Unit 3724

BDA
August 19, 2005